District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☑ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1 Operator Name and Address.	1 OGRID Number
Hallwood Petroleum, Inc. P.O. Box 378111 Denver, CO 80237 (303)850-7373	009812
	1 API Number 30 - 025-32578

1 Property Code	1 Property Name	1 Well No.
15330	Bass	#3

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	20S	33E		1,980	South	1,980	East	Lea

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

9 Proposed Pool 1	10 Proposed Pool 2
Hat Mesa - Delaware	

11 Work Type Code	12 Well Type Code	13 Cable/Rotary	14 Lease Type Code	15 Ground Level Elevation
N	O	R	S	3,594'
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	8,300'	Delaware	Not Known	8/15/94

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17.50"	13-3/8"K-55	54.50#	1,200'	1000 sxs	Surface
12.25"	8-5/8"K-55	24 X 32#	3,100'	1250 sxs	Surface
7.875"	5-1/2"N-80	15.5 X 17#	8,300'	1st; 450 sxs	3,000'
		Permit Expires 1 Year From Approval		2nd; 540 sxs	
		Date Unless Drilling Underway			

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Hallwood Petroleum, Inc. proposes to drill this well with conventional rotary tools and mud systems to 8,300'. Surface and intermediate (8-5/8") casing will be cemented to surface. The production casing will be 2-stage cemented back to appoximately 3,000'. The well will be perforated and fracture stimulated in the Upper and Lower Delaware Zones and put on conventional beam pump. See attached plats and supporting information. Lease is ST NML 9073.

POTASH AREA

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Kevin E. O'Connell

Printed name: Kevin E. O'Connell

Title: Drlg. & Prod. Manager

Date: 7/16/97 Phone: (303)850-6303

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY CHRIS WILLIAMS
DISTRICT I SUPERVISOR

Title:

Approval Date: AUG 08 1997 Expiration Date:

Conditions of Approval:
Attached ☐

Hallwood Petroleum, Inc.
Bass No. 3
NW SE Section 30-T20S-R33E
Lea County, New Mexico

List of Exhibits to Application for Permit to Drill (Form C-101)

Exhibit No.	Description
1	OCD Form C-102 - Well Location Plat
2	Vicinity Map
3	Location Verification Map
3A	Diagram of Lease Roads
4	Eight Point Drilling Plan
5	Blowout Prevention Equipment/Diagram
6	Hallwood Drilling Prognosis Form
7	Hallwood Geological Prognosis Form

EXHIBIT #1

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-
Revised February 10, 1
Instruction on b
Submit to Appropriate District Of
State Lease - 4 Co
Fee Lease - 3 Co

☐ AMENDED REP(

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-32578	30214	Hat Mesa - Delaware

Property Code	Property Name	Well Number
15330	BASS	3

OGRID No.	Operator Name	Elevation
009812	HALLWOOD PETROLEUM, INC.	3594'

Surface Location

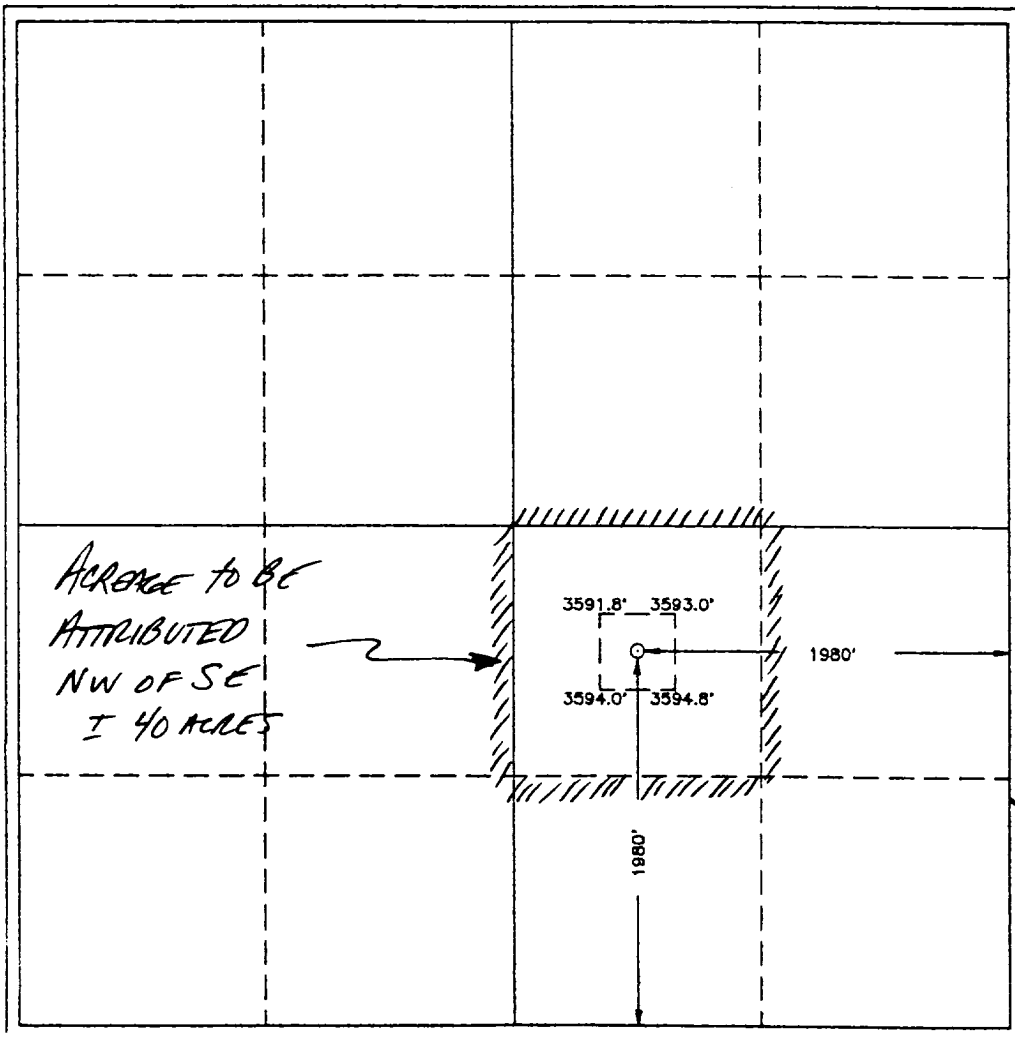
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Cou
J	30	20 S	33 E		1980	SOUTH	1980	EAST	LE

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Cou
(Straight Hole - N/A)									

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the informat contained herein is true and complete to best of my knowledge and belief.

Kevin E. O'Connell
Signature

Kevin E. O'Connell
Printed Name

Drlg. & Prod. Mana
Title

July 7, 1994
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location sh on this plat was plotted from field notes actual surveys made by me or under supervison, and that the same is true correct to the best of my belief.

APRIL 21, 1994
Date Surveyed

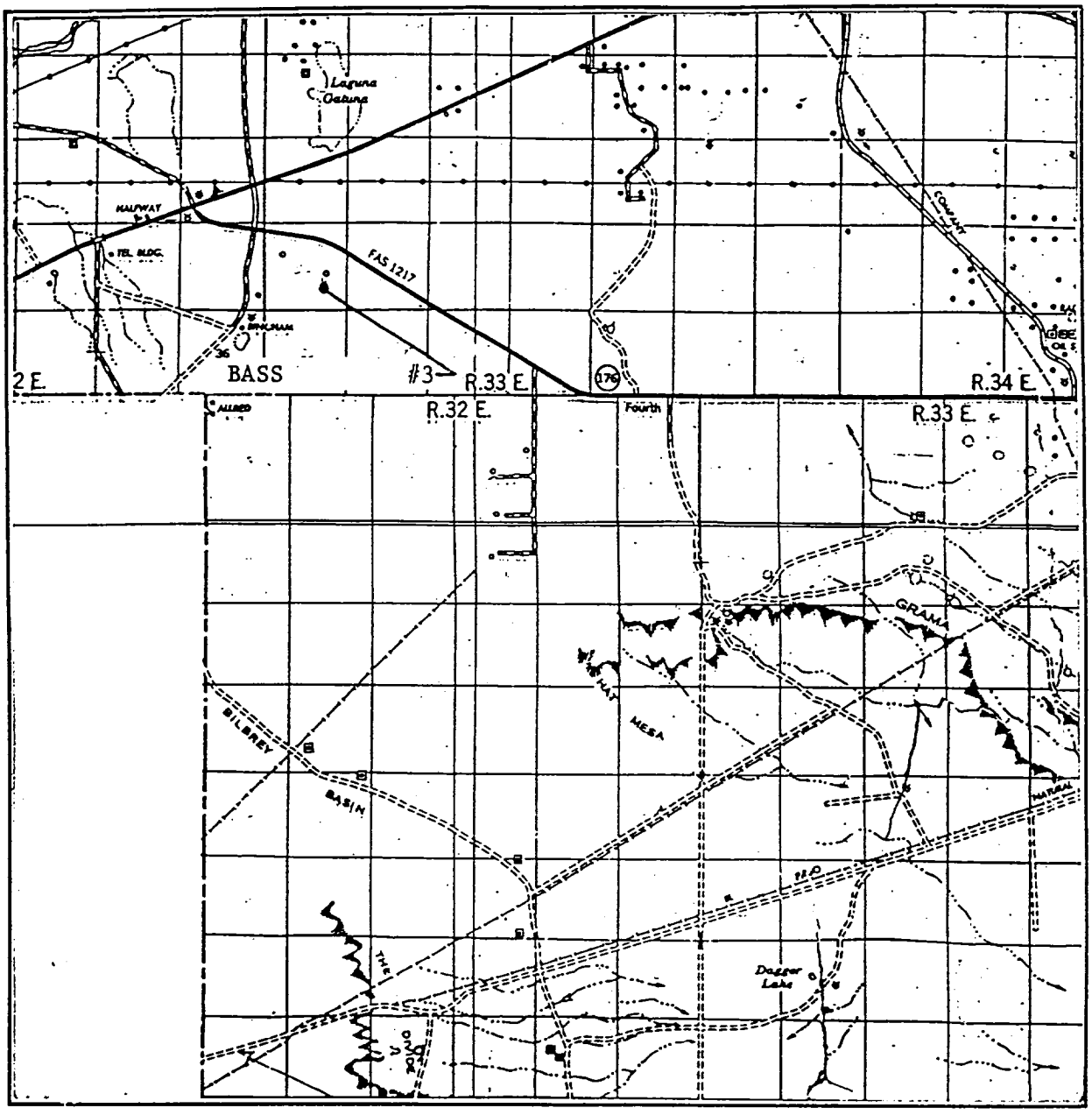
Signature & Seal of Professional Surveyor

W.O. Num. 94-11-0710

Certificate No. JOHN W. WEST, RONALD J. EIDSON, GARY L. JONES,

VICINITY MAP

EXHIBIT #2



SCALE: 1" = 2 MILES

SEC. 30 TWP. 20 S RGE. 33 E

SURVEY N.M.P.M.

COUNTY LEA STATE N.M.

DESCRIPTION 1980' FSL & 1980' FEL

ELEVATION 3594'

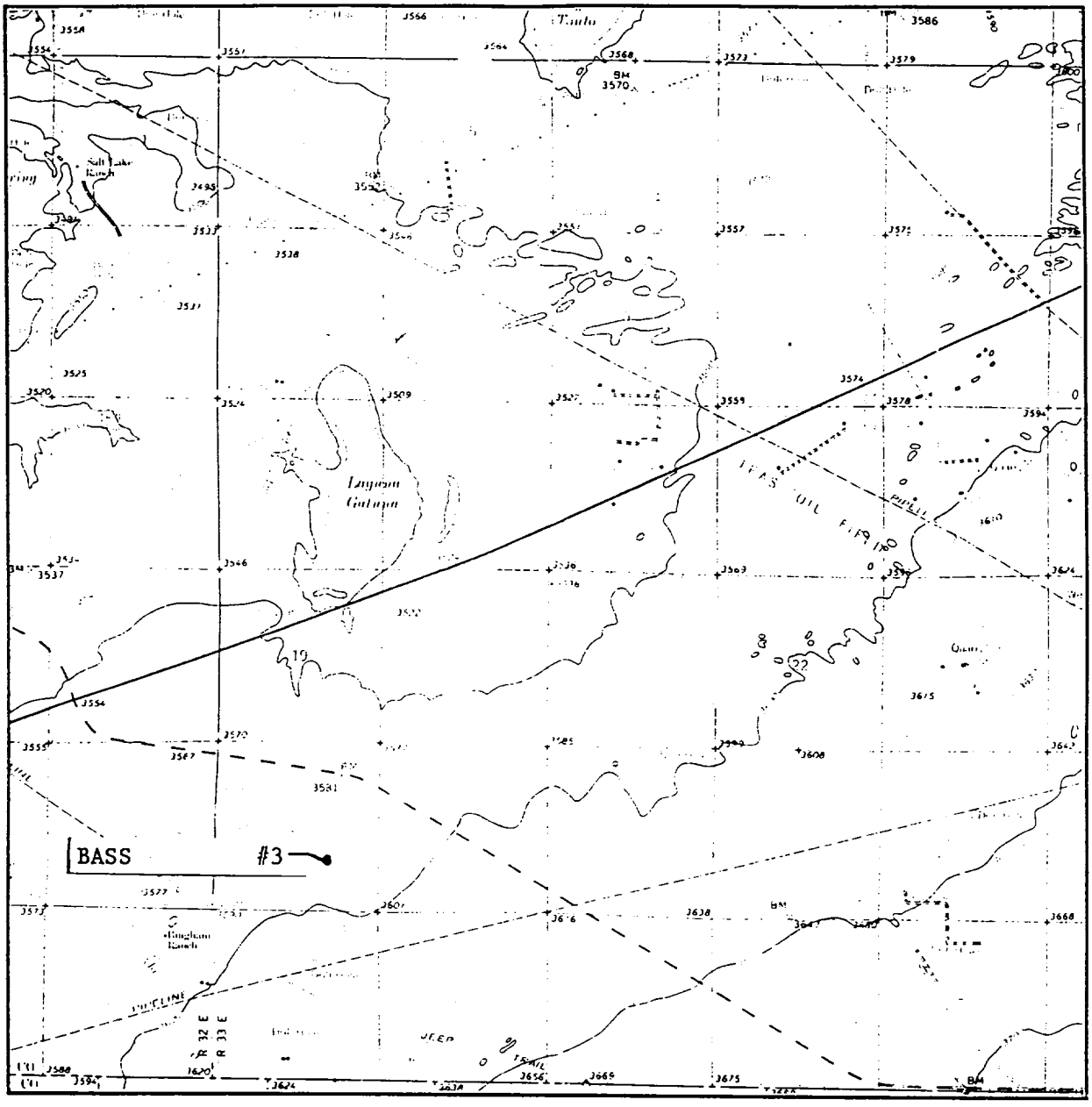
OPERATOR HALLWOOD PETROLEUM, INC.

LEASE BASS #3

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP

EXHIBIT #3



SCALE: 1" = 2000'

CONTOUR INTERVAL 10'

SEC. 30 TWP. 20 S RGE. 33 E

SURVEY N.M.P.M.

COUNTY LEA STATE N.M.

DESCRIPTION 1980 FSL & 1980 FEL

ELEVATION 3594'

OPERATOR HALLWOOD PETROLEUM INC.

LEASE BASS #3

U.S.G.S. TOPOGRAPHIC MAP

LAGUNA GATUNA, N.M.

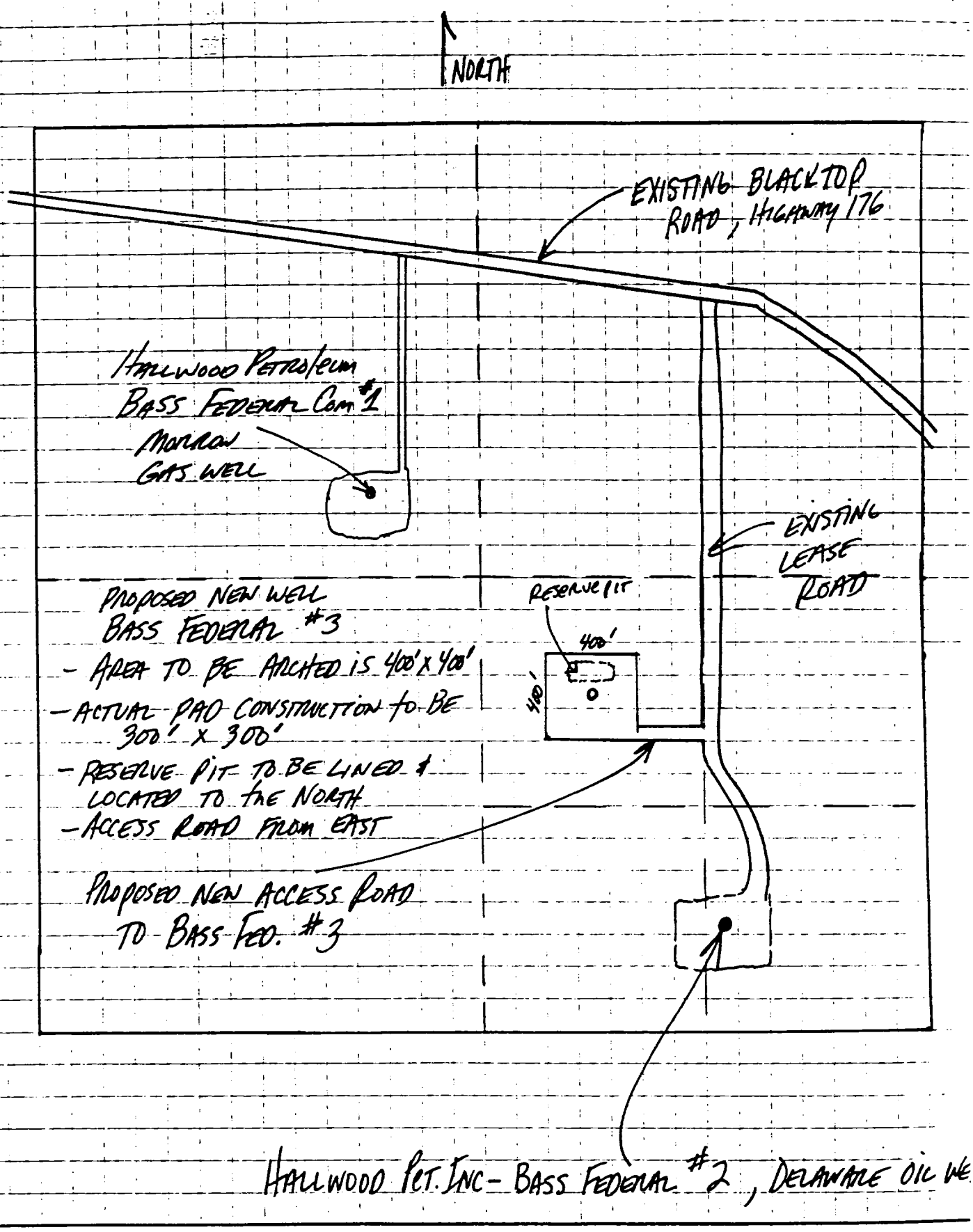
JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

Hallwood Energy Companies

EXHIBIT 3A

Subject Sec. 30 - T20S - R33E
LEA COUNTY, NEW MEXICO

Date 5/4/94 By K.E. O'Connell Page



1587-8/85

EXHIBIT 4
EIGHT POINT DRILLING PLAN

Attachment to Form C-101 (APD)
Hallwood Petroleum, Inc.
Bass #3
1980' FSL x 1980' FEL, NW of SW, Unit J
Section 30-T20S-R33E
Lea County, New Mexico

I. GEOLOGIC MARKER TOPS:

Formation	Top	Datum
Rustler	820'	+2,799'
Capitan Reef	3,050'	+569'
Delaware Sand	4,860'	-1,241'
Cherry Canyon	5,740'	-2,121'
Middle Delaware	6,549'	-2,930'
Lower Delaware	7,949'	-4,330'
Total Depth	8,300'	-4,681'

II. MINERAL OR WATER BEARING FORMATIONS:

Formation	Top-Bottom	Possible Content
Delaware	4,860-8,169'	Oil, Gas & Water

III. SPECIFICATIONS FOR PRESSURE CONTROL:

A. Blowout prevention hook-up schematic with minimum specifications is attached, Exhibit 5. This set-up will be installed, tested and utilized before drilling below the 8-5/8" casing.

B. Annular preventer will be utilized.

C. Location of hydraulic BOP controls:
   1. Remote unit on ground between doghouse and toolpusher's trailer.

D. BOP assemblies will be tested to three-quarters of their rated working pressures:
   1. When they are installed.
   2. Prior to drilling out surface casing.
   3. Minimum of once a week.

IV. CASING AND CEMENTING PROGRAMS:

A. Casing Program:

Depth	Bit Size	Csg. Size	Weight (ppf)	Grade	Coupling	Threads	Types
1,200'	17-1/2"	13-3/8"	54.50#	K-55	ST&C	8rd	Surface
3,100'	12-1/4"	8-5/8"	24&32#	J-55	LT&C	8rd	Intermediate
8,300'	7-7/8"	5-1/2"	17#	N-80	LT&C	8rd	Production

B. Cementing Program:

1000 SKS CMT KEO 7/16/97

Depth	Bit Size	Csg. Size	Cementing Hardware	Cement Types/ Volumes
0- 1200'	17-1/2"	13-3/8"/54.5#	Guide shoe & 3 centralizers	800 cubic feet 65/35 POZ lead &/86 cubic feet neat tail in.
0-3,100'	12-1/4"	8-5/8"/32.0#	Guide and float 10-12 bowspring centralizers, 8 on bottom joints and 2 inside 13-3/8"	1,747 cubic feet 65/35 POZ with 2% CaC12 and tail-in with 173 cu. ft. of neat cement.
0-8,300'	7-7/8"	5-1/2"/17.0#	Cement guide shoe and float collar, stage tool and multiple centralizers and turbulators throughout pay.	**1st Stage**-540 cu.ft. of neat cement to cover 8,300-6,000'. **2nd Stage**-691 cu.ft of 65/35 POZ lead followed by 115 cu.ft of neat tail.

All cement and displacement volumes are to recalculated on-site for the service company doing the work and for actual hole sizes on caliper logs.

C. Casing Pressure:

KEO 7/14/9

	Casing		
Surface	13-3/8" @ 1200'	600	~~500~~ psi for 30 minutes
Intermediate	8-5/8" @ 3,100'		1000 psi for 30 minutes
Production	5-1/2" @ 8,300'		1500 psi for 30 minutes

D. Additional Drilling Equipment:
1. Kelly Cock.
2. Stabbing valve when Kelly is out of the string.
3. Rotating head below intermediate.

IV. DRILLING FLUIDS PROGRAM (Also see Detailed Mud Program Description in Step III):

A. System volume on hand (steel tanks only) will be approximately 700-800 bbls.

Depth	Bit Size	Mud Wt.(PPG)	Mud Vls Secs	T.I. CC 30 secs	Comments
0- 1200'	17-1/2"	8.4-8.6	34-36	N/C	Spud with gel/lime fresh water based mud.
350-3100'	12-1/4"	10.0-10.1	28-30	N/C	Brine water mud, with aquagel. Floculated with lime to provide adequate viscosity t clean the hole. Keep LCM on hand.
3100-8300'	7-7/8"	9.0-9.2	28-30	N/C	Drill out surface wit cut brine. Mud up at 4,000' or as hole conditions dictate with starch mud.

B. Level of mud tanks will be monitored both visually and with PVT detection equipment.

VI. TESTING, LOGGING AND CORING:

A. No DST's are planned.

B. Electric Logging:
   1. FDC-CNL w/ GR from TD (8,300') to 3,000'.
   2. DIL/SP/GR from TD to 3,000'.

C. Coring: None Planned.

D. Completion:
   1. Hydraulically fracture through casing perforations with 200,000# sand in 65,000 gal 30lb. crosslinked gel.
   2. Produce through 2-7/8" tubing and 5-1/2" casing.

VII. BHP AND ABNORMAL CONDITIONS:

A. No abnormal pressures are anticipated. The field is well developed and no abnormal pressures were evident in any prior drilling.

B. Hydrogen sulfide is not present in the offset wells at this depth.

C. No abnormally high temperatures are expected.

VIII. ADDITIONAL INFORMATION:

See detailed mud program following this page. Should conditions change which alter any part of this drilling plan, the Oil Conservation Division will be promptly notified.

KEO\#228.pp

HALLWOOD PETROLEUM, INC.
BASS #3
SECTION 30, T-20-S, R-33-E
EDDY COUNTY, NEW MEXICO
TD 8,300'

PROPOSED MUD PROGRAM BY CASING INTERVAL

SURFACE 0' - ~~300'~~ 1200'

Spud with gel/lime spud mud having a 34 - 36 second funnel viscosity. A fluid having this viscosity should prove adequate to drill the poorly consolidated formations contained in this interval and insure surface casing operations.

Loss circulation is not anticipated in the drilling of this interval, but the possibility does exist. Should complete loss of returns be encountered, we recommend mixing a viscous 200 - 300 bbl slurry heavily laden with loss circulation material. Should this procedure fail to regain circulation, we suggest blind drilling to the surface casing point and sweeping the hole as needed with viscous gel mud.

INTERMEDIATE ~~350'~~ 1200' - ~~3,000'~~ 3100'

Drill below the surface casing with 10.0 ppg brinewater and circulating the reserve pit for maximum settling of drilled solids. The use of brinewater will help minimize leaching of the "Salt Section", thereby enhancing both annular hydraulics and cementing operations. Begin maintaining a 9.5 - 10.0 pH with caustic soda to retard the corrosiveness of the brine environment.

Problems with loss circulation are not anticipated but, again, the possibility does exist. Should complete loss of returns be encountered, we recommend mixing a viscous 200 - 300 bbl slurry heavily laden with loss circulation material. This procedure should regain returns and allow drilling operations to continue. Minor seepage can be easily controlled with a paper type loss circulation material.

Problems with fill-up may be encountered through the lower portion of this interval. The use of saltgel or pre-hydrated gel sweeps should alleviate this problem, however, should this problem persist mudding up for a 32 - 33 second viscosity is recommended.

Hole conditions allowing, brinewater should prove adequate to drill to the intermediate casing point. We do recommend sweeping the hole prior to casing operations to insure a well hole free of excessive cuttings and a safe casing operation.

HALLWOOD PETROLEUM, INC.
BASS #3
SECTION 30, T-20-S, R-33-E
EDDY COUNTY, NEW MEXICO
TD 8,300'

PROPOSED MUD PROGRAM BY CASING INTERVAL

PRODUCTION 4,300' - 8,300'

Drill below the intermediate casing with cut brine water. Continue circulating the reserve pit while drilling. Cut brine should prove adequate to approximately 4,000'. At 4,000' or prior to drilling the Delaware we then recommend mudding up with an Starch Mud System with the following mud properties:

Mud Weight	9.0 - 9.2 ppg
Viscosity	28 - 30 sec
Fluid Loss	20 - 30 cc

Some operators in this area are not interested in the Delaware and they do not mud up, but stay on cut brinewater to approximately 6,000'. If mudding up for the Delaware, consideration should be given to installing solids control equipment. Drilled solids in a mud system can create problems such as decreased penetration rates, increased mud cost, damaged pump parts, and higher water cost due to jetting and re-building volume. We recommend installing the following equipment prior to mudding up:

Linear Shaker
Centrifuge

If no solids control equipment is to be installed, we then recommend mudding up and circulating the reserve pit for maximum settling of drilled solids.

The fluid density should be maintained as low as possible to minimize the chance of losing returns in the lower Delaware mountain group. Fluid loss may still occur, but should easily be controlled with small additions of a paper type loss circulation material.

This starch mud system should prove adequate to approximately 6,000'. At 6,000', or prior to drilling in to the potential pay zones, we recommend further decreasing the fluid loss to 10 cc using starch.

This starch mud system will provide a very stable well bore and allow formation damage to be kept to a minimum. With mud properties adjusted as hole conditions dictate, this starch mud system should prove adequate to drill to total depth, log, test and run 5 1/2" production casing with no problems.

TYPE 2-BLOWOUT PREVENTER SPECIFICATIONS
3M & 5M WORKING PRESSURE

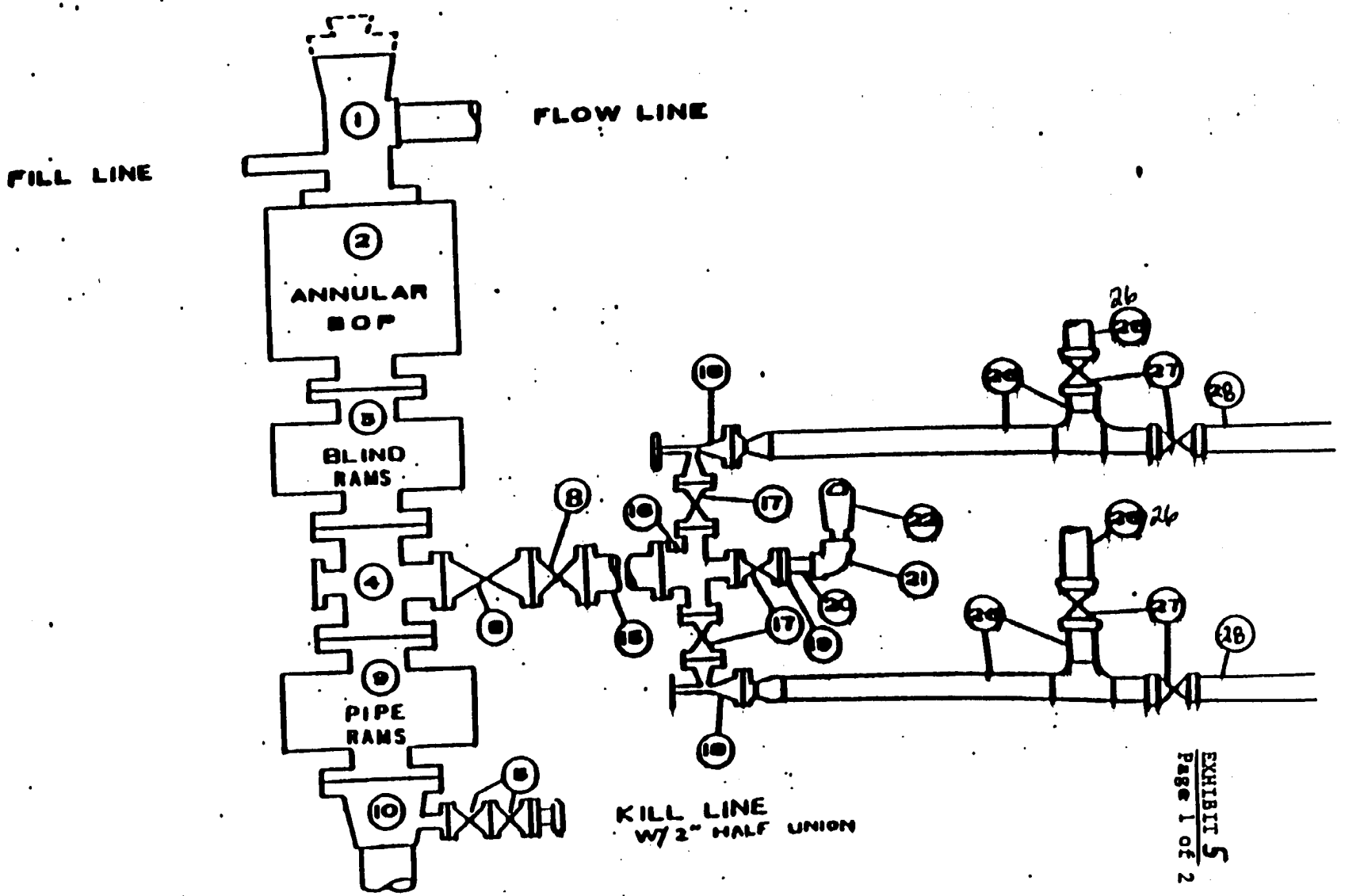


EXHIBIT 5
Page 1 of 2

FIG. 3.C.8

BLOWOUT PREVENTER SPECIFICATION
EQUIPMENT DESCRIPTION

TYPE 2
3,000 AND 5,000 PSI WORKING PRESSURE

All equipment shall be at least minimum stack WP or higher unless otherwise specified.

1. Bell nipple or rotating head.
2. Hydril or Shaffer and Cameron Annular bag type preventer.
3. Ram type pressure operated blowout preventer with blind rams.
4. Flanged spool with one 4-inch and one 2-inch (minimum) outlet.
5. 2-inch (minimum) flanged plug or gate valve.
6.
7.
8. 4-inch flanged gate or plug valve.
9. Ram type pressure operated blowout preventer with pipe rams.
10. Flanged type casing head with one side outlet (furnished by operator).
11.
12.
13.
14.
15. 4-inch flanged spacer spool.
16. 4-inch by 2-inch by 2-inch by 2-inch flanged cross.
17. 2-inch flanged plug or gate valve.
18. 2-inch flanged adjustable choke.
19. 2-inch threaded flange.
20. 2-inch XXH nipple.
21. 2-inch forged steel 90^{0} Ell.
22. Cameron (or equal) threaded pressure gage.
23.
24.
25.
26. 2-1/2-inch pipe, 300' to pit, anchored.
27. 2-1/2-inch valve.
28. 2-1/2-inch line to steel pit or separator.

NOTES:

1. Items 3, 4, and 9 may be replaced with double ram type preventer with side outlets between the rams.
2. The two valves next to the stack on kill line to be closed unless drill string is being pulled.
3. Kill line is for emergency use only. This connection shall not be used for filling.
4. Replacement pipe rams and blind rams shall be on location at all times.
5. Only type U, LWS, and ORC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.
6. Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.
7. Kelly will be equipped with upper kelly cock valve. Safety valve (stabbing) and handles for kelly cock and safety valve will be on rig floor. Handling subs for each type of pipe will be located on rig floor.

HALLWOOD DRILLING PROGNOSIS EXHIBIT 6

OPERATOR: Hallwood Petroleum, Inc. **DATE:** 6/21/94

WELL NAME: Bass No. 3 **PREPARED BY:** K.E. O'Connell

LOCATION: NW of SE/4 Section 30-T20S-R33E

COUNTY: Lea **STATE:** New Mexico

DRILLING PROGRAM: 1200' KEO 8/11/94

Casing/ Tubing	From	To	Size	Weight	Grade	CPLG	Hole Size
Surf.	0	~~350'~~	13-3/8"	54.5#	K-55	STXC	17-1/2"
Inter.	0	3,100'	8-5/8"	24 X 32#	K-55	LTXC	12-1/4"
Prod.	0	8,300'	5-1/2"	15.5 X 17#	N-80	LTXC	7-7/8"

MUD PROGRAM:

Type	Depth	Rheology	WT	Vis	WL
Native	0-350'		8.4- 8.6	34-36	NC
Brine Water	350-3,100'		10.0-10.1	28-29	NC
Cut Brine Water	3,100-8,300'		9.0- 9.2	28-40	20-30,
			After 6,000'		Below 10

CEMENT PROGRAM: 1000 SXS KEO 8/11/94

Interval Stage	Est. Slurry Volume	Slurry Characteristics	Equipment: DV, Scratcher, Centralizers, Shoe, Etc.
Surface	486 cu. ft.	250 sxs lead & 75 sxs neat tail	3 Centralizers
Intermediate	1920 cu. ft.	1100 sxs lead & 150 sxs neat tail	10-12 Centralizers
Production	1346 cu. ft. Cmt to 2,900'	1st: 450 sxs neat 2nd: 440 sxs lead 100 sxs neat tail	Turbulators & Cent.

BIT PROGRAM:

N/A - On Footage

DRILLING HAZARDS/PRODUCTION PROBLEMS:

None Anticipated

DEVIATION SURVEYS/PRODUCTION PROBLEMS:

None Anticipated.

WELLHEAD:

3000 PSI Equipment Required

SPECIAL EQUIPMENT:

None

SPECIAL PERSONNEL REQUIREMENTS:

None

Cementing Notes:

A) On surface hole use 100% excess cement.
B) On intermediate hole use 50% excess cement.
C) On production hole, assumed DV tool at 6,000'.
First Stage - Cement use 35% excess and all neat cement.
Second Stage - Use 50% excess, tail in with 100 sxs of neat, top of cement designed for 2,900'.

KEO725.pp

HALLWOOD GEOLOGICAL PROGNOSIS EXHIBIT 7

DATE: 3/25/94 **TYPE WELL:** Development

WELL NAME: Bass #3 **FIELD/LEASE:** Hat Mesa Field

LOCATION: NW SE Section 30-T20S-R33E

COUNTY: Lea **STATE:** New Mexico

ELEVATION: GR 3597 (est.) KB 3619 (est.) **TIGHT HOLE:**

Formation	Depth	Datum	Remarks
Middle Delaware	6549	-2930	Zones of Interest - Top
Middle Delaware	7069	-3450	Zones of Interest - Bottom
Lower Delaware	7949	-4330	Zones of Interest - Top
Lower Delaware	8169	-4550	Zones of Interest - Bottom

TOTAL DEPTH: 8300'

SAMPLES: 30' sample 3000' - 6000'
10' sample 6000' - TD

TESTING/CORING: None Planned

LOGGING PROGRAM: DIL/SP/GR frm TD to 3000'
FDC/CNL/GR frm TD to 3000' (Minimum)

WELLSITE GEOLOGIST/ MUDLOGGER: Unmanned Mud Log Unit & Wellsite geologist on location @ 6500'.

REMARKS:

Name	Position	Mobil Phone	Home Phone	Office Phone
Kevin O'Connell	Drlg & Prod Mgr.	N/A	(303)838-2191	(303)850-6303
Jim Bonaventura	Area Super.	(505)325-0492	(303)247-9662	(303)259-1374
John Genziano	Senior Engineer	N/A	(303)771-7120	(303)850-6223
Hallwood Fax Machine				(303)850-6530

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Hallwood Energy Companies

Subject BASS 3
C NW SE, SECTION 30 - T20S - R33E, LEA Co, NM
Date 8/10/94 By K.E. O'Connell Page

- SHADED AREAS REPRESENT POTASH LEASES